

Remarks

Favorable reconsideration of this application is requested in view of the above amendments and in light of the following remarks and discussion.

Claims 1-41 are pending, although claims 5-10, 16-23, 34-36 and 39 are withdrawn from consideration. Claims 1 and 24-26 are amended. Support for the changes to the claims is self-evident from the originally filed disclosure, including the original claims, and therefore no new matter is added.

In the outstanding Office Action claims 1, 24, 25 and 41 are rejected under 35 U.S.C. § 102(b) as anticipated by the publication to Galwas et al. (Galwas). Claims 2-4 are rejected under 35 U.S.C. § 103(a) as unpatentable over Galwas in view of U.S. Patent No. 4,866,371 to De and the publication to Hua et al. (Hua). Claims 26-28 are rejected under 35 U.S.C. § 103(a) as unpatentable over Galwas in view of U.S. Patent No. 5,334,941 to King. Claims 29-31 are rejected under 35 U.S.C. § 103(a) as unpatentable over Galwas in view of Hua. Claims 32 and 33 are rejected under 35 U.S.C. § 103(a) as unpatentable over Galwas and Hua and further in view of the publication to Xi et al. (Xi). Claims 14/1, 14/2, 15 and 38 are rejected under 35 U.S.C. § 103(a) as unpatentable over Galwas in view of U.S. Patent No. 2,867,781 to Tomiyasu et al. (Tomiyasu). Claim 14/2 is rejected under 35 U.S.C. § 103(a) as unpatentable over De and Hua in view of Tomiyasu. Claims 37 and 13/2 are rejected under 35 U.S.C. § 103(a) as unpatentable over Galwas in view of U.S. Patent No. 6,656,864 to Okawa. Claim 13/2 is rejected under 35 U.S.C. § 103(a) as unpatentable over De and Hua, and further in view of Okawa. It is asserted that the amendments to the claims overcome the rejections for the following reasons.

The present invention, as recited in independent claim 1, is directed to a method of measuring a complex dielectric constant of a dielectric. The method includes filling a mode generator with the dielectric. The filling of the mode generator includes disposing first and

second pistons opposite one another to form a gap therebetween, and disposing a cylinder to contact portions of exterior walls of each of the first and second pistons and to form a closed space to receive the dielectric. An electromagnetic wave is input to the mode generator, an electromagnetic wave output from the mode generator is measured, and the complex dielectric constant is calculated based on the measured electromagnetic wave.

The claimed features recited in independent claim 1 can provide numerous advantages. By way of specific non-limiting examples, because the cylinder contacts the exteriors of the first and second pistons to form the closed space in which the dielectric can be filled, such that the cylinder surrounds portions of the first and second pistons, the pistons can be removable and separable from one another. Thus, the closed space can be easily accessed or opened. For example, the first piston can be removed from the other pistons for easy filling of the dielectric in the mode generator. Further, the height of the dielectric in the closed space, as well as the gap between the dielectric and the first piston, can be easily and precisely controlled as the relative positions of the pistons can be easily adjusted. Further, complete disassembly of the pistons from each another can also be easily accomplished, such as by loosening only a pair of fasteners included in the cylinder, the fasteners holding the cylinder to the first and second pistons. Thus, the claimed features permit the gap to be varied between the first and second pistons, and permit disassembly for removal of the dielectric from between the first and second pistons.

With respect to the rejection of independent claim 1, Galwas is directed to dielectric measurements using a coaxial resonator. The Office Action seems to assert on page 5, section 6, that Galwas depicts a top layer below T1, a bottom layer above T2, and a cylinder near 2b that are analogous to the claimed features of the first, second, and cylinders, respectively. It is submitted that even if these assertions are agreed with, Galwas still does not disclose or render obvious the claimed features recited in independent claim 1.

Specifically, Galwas does not depict or describe the cylinder near 2b, as identified in the Office Action, as contacting portions of exterior walls of each of the top layer below T1 and the bottom layer above T2 to form a closed space to receive a dielectric. Thus, Galwas does not disclose or render obvious the claimed features of disposing a cylinder to contact portions of exterior walls of each of first and second pistons, as recited in independent claim 1.

On the contrary, Galwas appears to show that the cylinder near 2b is part of the same structure as the top layer below T1 and the bottom layer above T2, and therefore does not contact exterior walls of the top and bottom layers. It is submitted that because Galwas does not show that the cylinder contacts exterior portions of the top and bottom layers, and does not show that the cylinder is separable from the top and bottom layers, Galwas does not provide the above discussed advantages provided by the present invention as recited in independent claim 1.

For these reasons, it is requested that the rejection of independent claim 1 be withdrawn, and that independent claim 1 be allowed.

Independent claim 24 is allowable for reasons similar to those of independent claim 1. Thus, it is requested that the rejection of independent claim 24 be withdrawn, and that independent claim 24 be allowed.

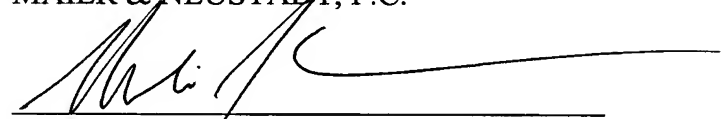
Claims 2-23 and 25-41 are allowable for the same reasons as independent claims 1 and 24 from which they depend, as well as for their own features. Therefore, it is requested that withdrawn claims 5-10, 16-23, 34-36 and 39 be examined on the merits, and that each of dependent claims 2-23 and 25-41 be allowed.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

Respectfully submitted,

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